PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5828711

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
NANOPRECISION HOLDING COMPANY, INC.	11/14/2019
NANOPRECISION PRODUCTS, INC.	11/14/2019

RECEIVING PARTY DATA

Name:	LAKE VIEW AG
Street Address:	C/O TRANSRECO TRADING EST.
Internal Address:	IM GAFOS 5
City:	SCHAAN
State/Country:	LIECHTENSTEIN
Postal Code:	FL 9494

PROPERTY NUMBERS Total: 118

Property Type	Number
Application Number:	13786448
Application Number:	13861273
Application Number:	14031036
Application Number:	14695008
Application Number:	14714211
Application Number:	14714240
Application Number:	14714247
Application Number:	14721990
Application Number:	14857757
Application Number:	14940141
Application Number:	14968841
Application Number:	15058070
Application Number:	15077816
Application Number:	15077902
Application Number:	15135464
Application Number:	15135466
Application Number:	15236381
Application Number:	15236390

Property Type	Number
Application Number:	15333184
Application Number:	15362077
Application Number:	15460228
Application Number:	10620851
Application Number:	10643759
Application Number:	13171435
Application Number:	13440970
Application Number:	13650099
Application Number:	13650119
Application Number:	13668207
Application Number:	13861268
Application Number:	14449133
Application Number:	15224413
Application Number:	13861375
Application Number:	62396114
Application Number:	62396113
Application Number:	62424210
Application Number:	62376245
Application Number:	62376381
Application Number:	62376249
Application Number:	62384141
Application Number:	62384143
Application Number:	62384146
Application Number:	62384148
Application Number:	62384150
Application Number:	62384152
Application Number:	62384154
Application Number:	62483801
Application Number:	15143525
Application Number:	13329380
Application Number:	14666427
Application Number:	13658379
Application Number:	15680203
Application Number:	15680204
Application Number:	15697439
Application Number:	15697443
Application Number:	15849441
Application Number:	15880462

Property Type	Number
Application Number:	15630861
Application Number:	15668670
Application Number:	15726324
Application Number:	15864579
Application Number:	15943502
Application Number:	15990306
Application Number:	16036842
Application Number:	16037705
Application Number:	16111113
Application Number:	61537002
Application Number:	61620965
Application Number:	61699125
Application Number:	61702697
Application Number:	61811089
Application Number:	61879277
Application Number:	61879339
Application Number:	61879625
Application Number:	62038239
Application Number:	62051827
Application Number:	62051835
Application Number:	62219920
Application Number:	62219931
Application Number:	62256941
Application Number:	62308818
Application Number:	62529393
Application Number:	62546488
Application Number:	62650270
Application Number:	62651032
Application Number:	62694446
Application Number:	62719070
Application Number:	62554885
Application Number:	62749620
Application Number:	62749619
Application Number:	62749618
Application Number:	62749616
Application Number:	62770690
Application Number:	16363782
Application Number:	16372374

Property Type	Number
Application Number:	16378308
Application Number:	16388741
Application Number:	16450746
Application Number:	16513502
Application Number:	16569200
Application Number:	62825236
Application Number:	62871492
Application Number:	62887159
Application Number:	62889532
Application Number:	62904597
Application Number:	16372377
Application Number:	16372361
Application Number:	16662021
Application Number:	16662016
Application Number:	62924855
Application Number:	62924860
PCT Number:	US2016058554
PCT Number:	US2017047460
PCT Number:	US2017047461
PCT Number:	US2017050365
PCT Number:	US2017022609
PCT Number:	US2017050364
PCT Number:	US2019057744
PCT Number:	US2019057742

CORRESPONDENCE DATA

Fax Number: (619)235-0398

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ATTORNEY DOCKET NUMBER:	128113-000002
NAME OF SUBMITTER:	CAITLIN E. YAUSSI
SIGNATURE:	/CAITLIN E. YAUSSI/
DATE SIGNED:	11/19/2019

Total Attachments: 44

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THIRD AMENDMENT TO PATENT SECURITY AGREEMENT

THIS THIRD AMENDMENT TO PATENT SECURITY AGREEMENT, dated as of November 14, 2019 (this "**Amendment**") is among **NANOPRECISION HOLDING COMPANY, INC.**, a California corporation, and **NANOPRECISION PRODUCTS, INC., a Delaware corporation** (each, individually, a "**Grantor**" and, collectively, the "**Grantors**") and **LAKE VIEW AG**, a Liechtenstein company ("**Grantee**" or "**Secured Party**").

WHEREAS, Grantors and Grantee are parties to that certain Patent Security Agreement, dated as of February 27, 2018 and First Amendment to Patent Security Agreement, dated as of October 1, 2018, and Second Amendment to Patent Security Agreement, dated as of October 31, 2018 (collectively, the "**Existing Patent Security Agreements**"), pursuant to which Grantors granted to Grantee a continuing security interest in certain Patent Rights to secure one or more loans by Grantee to Grantors evidenced by Security Agreements as expressly provided therein. Capitalized terms not otherwise used and not otherwise defined in this Amendment shall have the same respective meanings given to such terms in the Existing Patent Security Agreements.

WHEREAS, Grantee agreed to amend the Security Agreements and has made one or more additional loans to Grantors, with such indebtedness further evidenced by the First Amendment to Loan and Security Agreement, dated as of June 15, 2018, Amended and Restated Term Loan Note, dated as of June 15, 2018, the Second Amendment to Loan and Security Agreement, dated as of August 30, 2018, the Third Amendment to Loan Security Agreement, dated as of October 31, 2018, and the Second Amended and Restated Term Loan Note, dated as of October 31, 2018, Third Amended and Restated Term Loan Note, dated as of January 17, 2019, Fourth Amendment to Loan Security Agreement, dated as of January 17, 2019, fourth Amended and Restated Term Loan Note, dated as of April 15, 2019, and fifth Amendment to Loan Security Agreement, dated as of April 15, 2019 (the "**Security Agreement Amendments**").

WHEREAS, Grantors own all right, title and interest in and to additional patents and patent applications that are now included and listed on **Exhibit A** attached hereto, including: (a) all letters patent of the United States or any other country, all registrations and recordings thereof, and all applications for letters patent of the United States or any other country, including registrations, recordings and applications in the U.S. Patent and Trademark Office or in any similar office or agency of the United States, any state or territory thereof, or any other country with respect to any inventions and improvements described and claimed therein, (b) all applications claiming the benefit of the filing date of the listed patent applications, patents pending, and patents, all reissues, continuations, continuations in part, reexaminations, divisions, renewals or extensions thereof, (c) all right (but not the obligation) of Secured Party to sue in its own name and/or in the name of the Grantors for past, present and future infringements thereof, and (d) all rights corresponding to the foregoing throughout the world (collectively, the "**Amended Patent Rights**").

WHEREAS, the parties wish to execute and deliver this Amendment for the purpose of confirming the grant of a further continuing security interest pursuant to the Security Agreement and Security Agreement Amendments in the Amended Patent Rights from Grantors to Grantee.

NOW THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, in order to secure the payment and performance in full of all of Grantors' Obligations (as such term is defined in the Security Agreements and Security Agreement Amendments), Grantors hereby grant to Grantee a further

continuing security interest in the Amended Patent Rights, including all income, royalties, damages and payments now or hereafter due and/or payable under or with respect thereto, the right to sue for past, present and future infringements thereof, all other rights corresponding thereto throughout the world, and all proceeds and products thereof and do further agree as follows:

1. Amendment to Section 1 of the Existing Patent Security Agreements. Grantors hereby acknowledge and affirm that the rights and remedies of the Grantee with respect to the security interest in the Amended Patent Rights granted hereby and as are more fully set forth in the Security Agreements and Security Agreement Amendments, the terms and provisions of which (including the remedies provided for therein) are incorporated by reference herein as if fully set forth herein. In the event of any conflict between the terms of this Amendment and the Existing Patent Security Agreements, and the terms of the Security Agreements and Security Agreement Amendments, the terms of the Security Agreements and Security Agreement Amendments shall govern.

2. Amendment to Section 2 of the Existing Patent Security Agreements. Grantors hereby agree to execute, at Grantors' expense, such additional documents as Grantee may request to register and otherwise give full effect to and perfect the rights of Grantee under this Amendment and the Existing Patent Security Agreements in and to the Amended Patent Rights worldwide, including all documents necessary to record this Amendment with the U.S. Patent Office.

3. Ratification of Existing Patent Security Agreement, Security Agreements, and Security Agreement Amendments. The Existing Patent Security Agreements, as amended by this Amendment, and the Security Agreements and Security Agreement Amendments are hereby ratified, approved and confirmed and shall remain in full force and effect. From and after the Effective Date, all references to the "Patent Security Agreement" shall be deemed references to the Existing Patent Security Agreements as amended by this Amendment.

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IN WITNESS WHEREOF, each of the parties hereto has caused this Third Amendment to Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

NANOPRECISION HOLDING COMPANY, INC.,
as Grantor,

By: _____

Name: Aaron Mendelsohn

NANOPRECISION PRODUCTS, INC.,
as Grantor,

By: _____

Name: R. Ryan Vallance

LAKE VIEW AG,
as Grantee,

By: _____

Name: Ch. Thöny

EXHIBIT A
to
PATENT SECURITY AGREEMENT

LIST OF COLLATERAL

U.S. Patent Applications, Patents Pending and Patents:

APP. NO.	PAT. NO.	TITLE	FILING DATE
13/786,448		COUPLING DEVICE HAVING A STRUCTURED REFLECTIVE SURFACE FOR COUPLING INPUT/OUTPUT OF AN OPTICAL FIBER	March 5, 2013
13/861,273		HERMETIC OPTICAL FIBER ALIGNMENT ASSEMBLY HAVING INTEGRATED OPTICAL ELEMENT	April 11, 2013
14/031,036	9,885,833	OPTICAL FIBER SCRIBING TOOL	September 18, 2013
14/695,008		COUPLING DEVICE HAVING A STAMPED STRUCTURED SURFACE FOR ROUTING OPTICAL DATA SIGNALS	April 23, 2015
14/714,211	9,782,814	STAMPING TO FORM A COMPOSITE STRUCTURE OF DISSIMILAR MATERIALS HAVING STRUCTURED FEATURES	May 15, 2015
14/714,240		DEMOUNTABLE OPTICAL CONNECTOR FOR OPTOELECTRONIC DEVICES	May 15, 2015
14/714,247		OPTICAL CONNECTION OF OPTICAL FIBERS TO GRATING COUPLERS	May 15, 2015

APP. NO.	PAT. NO.	TITLE	FILING DATE
14/721,990	9,897,769	VISION-BASED PASSIVE ALIGNMENT OF AN OPTICAL FIBER SUBASSEMBLY TO AN OPTOELECTRONIC DEVICE	May 26, 2015
14/857,757		TENSIONING DEVICE HAVING A FLEXURE MECHANISM FOR APPLYING AXIAL TENSION TO CLEAVE AN OPTICAL FIBER	September 17, 2015
14/940,141	9,915,791	METHOD OF LASER POLISHING A CONNECTORIZED OPTICAL FIBER AND A CONNECTORIZED OPTICAL FIBER FORMED IN ACCORDANCE THEREWITH	November 12, 2015
14/968,841		HERMETIC OPTICAL FIBER ALIGNMENT ASSEMBLY	December 14, 2015
15/058,070		FERRULE FOR OPTICAL FIBER CONNECTOR HAVING A COMPLIANT STRUCTURE FOR CLAMPING ALIGNMENT PINS	March 1, 2016
15/077,816		OPTICAL BENCH SUBASSEMBLY HAVING INTEGRATED PHOTONIC DEVICE	March 22, 2016
15/077,902	9,851,511	AXIAL PRELOAD FOR DEMOUNTABLE CONNECTORS	March 22, 2016
15/135,464		COUPLING DEVICE HAVING A STRUCTURED REFLECTIVE SURFACE FOR COUPLING INPUT/OUTPUT OF AN OPTICAL FIBER	April 21, 2016
15/135,466		HERMETIC OPTICAL FIBER ALIGNMENT ASSEMBLY HAVING INTEGRATED OPTICAL ELEMENT	April 21, 2016

APP. NO.	PAT. NO.	TITLE	FILING DATE
15/236,381		STAMPED SOLAR COLLECTOR CONCENTRATOR SYSTEM	August 12, 2016
15/236,390	9,864,145	MULTIPLEXER/DEMULTIPLEXER USING STAMPED OPTICAL BENCH WITH MICRO MIRRORS	August 12, 2016
15/333,184	9,880,366	HERMETIC OPTICAL SUBASSEMBLY	October 24, 2016
15/362,077		HIGH DENSITY MULTI-FIBER FERRULE FOR OPTICAL FIBER CONNECTOR	November 28, 2016
15/460,228	10,025,043	OPTICAL ALIGNMENT OF AN OPTICAL SUBASSEMBLY TO AN OPTOELECTRONIC DEVICE	March 15, 2015
10/620,851	7,343,770	STAMPING SYSTEM FOR MANUFACTURING HIGH TOLERANCE PARTS	June 15, 2003
10/643,759	7,311,449	HIGH PRECISION OPTOELECTRONIC COMPONENTS	August 18, 2003
13/171,435	8,740,029	DETERMINISTIC CLEAVE OF OPTICAL FIBER	June 28, 2011
13/440,970	8,961,034	OPTICAL FIBER CONNECTOR FERRULE HAVING OPEN FIBER CLAMPING GROOVES	April 5, 2012
13/650,099	9,507,099	HIGH DENSITY MULTI-FIBER FERRULE FOR OPTICAL FIBER CONNECTOR	October 11, 2012
13/650,119	9,279,942	FERRULE FOR OPTICAL FIBER CONNECTOR HAVING A COMPLIANT STRUCTURE FOR CLAMPING ALIGNMENT PINS	October 11, 2012

APP. NO.	PAT. NO.	TITLE	FILING DATE
13/668,207	9,091,833	CASTELLATED OPTICAL FIBER CABLE RETENTION STRUCTURE	November 2, 2012
13/861,268	9,213,148	HERMETIC OPTICAL FIBER ALIGNMENT ASSEMBLY	April 11, 2013
14/449,133	9,690,054	FOLDOVER OPTICAL FIBER FERRULE ASSEMBLY	July 31, 2014
15/224,413	9,857,542	BIDIRECTIONAL OPTICAL TRANSCEIVER MODULE	July 29, 2016
13/861,375	10,359,575	Optical Fiber Connector Ferrule Having Curved External Alignment Surface	4/11/2013
62/396,114		Flexing Mechanism For Generating Cyclic Tensile Stress For Controlled Optical Fiber Cleaving	9/17/2016
62/396,113		Sliding Mechanisms for Scribing Optical Fibers	9/17/2016
62/424,210		12-Fiber Football Widened LC Connectors	11/18/2016
62/376,245		FIBER-OPTIC FERRULE THAT USES A SINGLE STAMPED MIRROR FOR EXPANSION OF OPTICAL BEAM	August 17, 2016
62/376,381		FIBER-OPTIC FERRULE THAT USES TWO STAMPED MIRRORS FOR EXPANSION OF OPTICAL BEAM	August 17, 2016
62/376,249		An Expanded-Beam Multi-Fiber Ferrule Using Refractive Micro Lens Array	8/17/2016
62/384,141		ASSEMBLY AND TERMINATION PROCESS FOR STAMPED SEMI-FERRULES AND FIBER-OPTIC CONNECTORS	September 6, 2016

APP. NO.	PAT. NO.	TITLE	FILING DATE
62/384,143		FIXTURE FOR ALIGNING TWO SEMI-FERRULES AND A FIBER-OPTIC CABLE FOR ASSEMBLY AND TERMINATION	September 6, 2016
62/384,146		GRIPPER FOR GRASPING PAIRS OF SEMI-FERRULES DURING TERMINATION OF FIBER-OPTIC CABLES	September 6, 2016
62/384,148		HIGH-PRECISION ALIGNMENT FIXTURE FOR LASER WELDING OF FIBER-OPTIC FERRULES	September 6, 2016
62/384,150			
62/384,152			
62/384,154		APPARATUS FOR RESHAPING AND RESIZING MICRO GROOVES TO HOLD OPTICAL FIBERS	September 6, 2016
62/483,801		FootballFerrule SC Connector	4/10/2017
15/143,525	10,063,316	WALL PLATE HAVING A BUILT-IN MODEM FOR PERFORMING ELECTRICAL-TO-OPTICAL CONVERSION, OPTICAL-TO-ELECTRICAL CONVERSION AND PROTOCOL-TO-PROTOCOL CONVERSION	April 30, 2016
13/329,380	9,011,025	MODIFIED TRANSISTOR OUTLINE (TO)-CAN ASSEMBLY FOR USE IN OPTICAL COMMUNICATIONS AND A METHOD	December 19, 2011
14/666,427	9,400,360	MODIFIED TRANSISTOR OUTLINE (TO)-CAN ASSEMBLY FOR USE IN OPTICAL COMMUNICATIONS AND A METHOD	March 24, 2015

APP. NO.	PAT. NO.	TITLE	FILING DATE
13/658,379	9,983,414	OPTOELECTRONIC MODULE HAVING A STAMPED METAL OPTIC	October 23, 2012
15/680,203		OPTICAL FIBER CONNECTOR FERRULE ASSEMBLY HAVING SINGLE REFLECTIVE SURFACE FOR BEAM EXPANSION AND EXPANDED BEAM CONNECTOR INCORPORATING SAME	October 17, 2017
15/680,204	10,241,275	OPTICAL FIBER CONNECTOR FERRULE ASSEMBLY HAVING DUAL REFLECTIVE SURFACES FOR BEAM EXPANSION AND EXPANDED BEAM CONNECTOR INCORPORATING SAME	August 17, 2017
15/697,439		HIGH-PRECISION FIXTURE FOR ALIGNING OPTICAL FIBER FERRULES FOR PROCESSING AND PROCESSES USING SAME	September 6, 2017
15/697,443		FIXTURE FOR RESHAPING AND RESIZING GROOVES IN OPTICAL FIBER FERRULES AND PROCESS INCORPORATING SAME	September 6, 2017
15/849,441	10,274,683	AXIAL PRELOAD FOR DEMOUNTABLE CONNECTORS	December 20, 2017
15/880,462		HERMETIC OPTICAL SUBASSEMBLY	January 25, 2018
15/630,861		FOLDOVER OPTICAL FIBER FERRULE ASSEMBLY	June 22, 2017
15/668,670		COUPLING DEVICE HAVING A STRUCTURED REFLECTIVE SURFACE FOR COUPLING INPUT/OUTPUT OF AN OPTICAL FIBER	August 3, 2017

APP. NO.	PAT. NO.	TITLE	FILING DATE
15/726,324	10,413,953	Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	10/5/2017
15/864,579	10,222,553	Multiplexer/Demultiplexer Using Stamped Optical Bench with Micro Mirrors	1/8/2018
15/943,502		Demountable Optical Connector for Optoelectronic Devices	4/2/2018
15/990,306		A Stamped Metal Optic for Use in an Optical Communications Module	5/25/2018
16/036,842		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	7/16/2018
16/037,705		Hermetic Optical Fiber Alignment Assembly	7/17/2018
16/111,113		Wall Plate Having a Built-In Modem for Performing Electrical-to-Optical Conversion	8/23/2018
61/537,002		Flexing Mechanism for Generating Cyclic Tensile Stress for Controlled Optical Fiber Cleaving	9/20/2011
61/620,965		Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	4/5/2012
61/699,125		Demountable Optical Fiber Subassembly (OFSA)	9/10/2012
61/702,697		Flexing Mechanism For Generating Cyclic Tensile Stress For Controlled Optical Fiber Cleaving	9/18/2012
61/811,089		Ferrule & Alignment Sleeve for Multiple Optical Fibers	4/11/2013
61/879,277		Flexing Mechanism For Generating Cyclic Tensile Stress For Controlled	9/18/2013

APP. NO.	PAT. NO.	TITLE	FILING DATE
		Optical Fiber Cleaving	
61/879,339		Sliding Mechanisms for Scribing Optical Fibers	9/18/2013
61/879,625		Mechanisms with Flexures for Cleaving Optical Fibers	9/18/2013
62/038,239		Stamped Solar Concentrating Systems	8/16/2014
62/051,827		Flexing Mechanism For Generating Cyclic Tensile Stress For Controlled Optical Fiber Cleaving	9/17/2014
62/051,835		Sliding Mechanisms for Scribing Optical Fibers	9/17/2014
62/219,920		Flexing Mechanism For Generating Cyclic Tensile Stress For Controlled Optical Fiber Cleaving	9/17/2015
62/219,931		Sliding Mechanisms for Scribing Optical Fibers	9/17/2015
62/256,941		12-Fiber Football Widened LC Connectors	11/18/2015
62/308,818		Separable Fiber-Optic Connector for Optical Circuits Using Optically-Aligned Foundation	3/15/2016
62/529,393		Beam Combiner for Multi-Fiber Receiver	7/6/2017
62/546,488		An Expanded-Beam Multi-Fiber Ferrule Using Refractive Micro Lens Array	8/16/2017
62/650,270		Micro Mirror Array Attached to Fiber Array	3/29/2018
62/651,032		Pre-Mount Micro Optical Bench Mirror Array on Chip or Board	3/30/2018

APP. NO.	PAT. NO.	TITLE	FILING DATE
62/694,446		Beam Combiner for Multi-Fiber Receiver	7/6/2018
62/719,070		An Expanded-Beam Multi-Fiber Ferrule Using Refractive Micro Lens Array	8/16/2018
62/554,885			
62/749,620		METALLIC FIBER ARRAY JOINED BY SOLDER	10/23/2018
62/749,619		METALLIC MT & MT-RJ FERRULES WITH STAMPED COMPONENTS	10/23/2018
62/749,618		PIC EDGE COUPLERS THAT USE MICRO OPTICAL BENCHES	10/23/2018
62/749,616		RIGHT-ANGLE BOARD CONNECTOR USING MICRO OPTICAL BENCH	10/23/2018
62/770,690		FIBER PITCH CONVERTER	11/21/2018
16/363,782		OPTICAL FIBER CONNECTOR FERRULE ASSEMBLY HAVING DUAL REFLECTIVE SURFACES FOR BEAM EXPANSION AND EXPANDED BEAM CONNECTOR INCORPORATING SAME	March 25, 2019
16/372,374		Coupling Device Having a Stamped Structured Surface for Routing Optical Data Signals	April 1, 2019
16/378,308		Hermetic Optical Subassembly	April 8, 2019
16/388,741		Optical Connection of Optical Fibers to Grating Couplers	April 18, 2019
16/450,746		Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	June 24, 2019

APP. NO.	PAT. NO.	TITLE	FILING DATE
16/513,502		Optical Fiber Connector Ferrule Having Curved External Alignment Surface	July 16, 2019
16/569,200		Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	September 12, 2019
62/825,236		Pre-Mount Micro Optical Bench Mirror Array on Chip or Board	March 28, 2019
62/871,492		Beam Combiner for Multi-Fiber Receiver	July 8, 2019
62/887,159		An Expanded-Beam Multi-Fiber Ferrule Using Refractive Micro Lens Array	August 15, 2019
62/889,532		Improved Demountable Fiber Optic Connector of Photonic Integrated Circuit	August 20, 2019
62/904,597		Approach to Making Faceplates for Watches	September 23, 2019
16/372,377		Optical Bench Subassembly Having Integrated Photonic Device	April 1, 2019
16/372,361		Coupling Device Having a Stamped Structured Surface for Routing Optical Data Signals	April 1, 2019
16/662,021		A Demountable Connection of an Optical Connector & an Optical Bench Using an Alignment Coupler	October 23, 2019
16/662,016		Demountable Edge Couplers with Micro-Mirror Optical Bench for Photonic Integrated Circuits	October 23, 2019
62/924,855		Metallic MT & MT-RJ Ferrules with Stamped Components	October 23, 2019
62/924,860		Metallic Fiber Array Joined By Solder	October 23, 2019

International and Foreign Patent Applications, Patents Pending and Patents:

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
BR	BR112012033683		DETERMINISTIC CLEAVE OF OPTICAL FIBER	December 6, 2016
BR	BR112014010540		CASTELLATED OPTICAL FIBER CABLE RETENTION STRUCTURE	June 13, 2017
BR	BR112014025229		HERMETIC OPTICAL FIBER ALIGNMENT ASSEMBLY	October 24, 2017
BR	BR112015005780		OPTICAL FIBER SCRIBING TOOL	July 4, 2017
BR	BR112017009825		A METHOD OF LASER POLISHING A CONNECTORIZED OPTICAL FIBER AND A CONNECTORIZED OPTICAL FIBER FORMED IN ACCORDANCE THEREWITH	December 26, 2017
BR	BR112017019128		AXIAL PRELOAD FOR DEMOUNTABLE CONNECTORS	May 2, 2018

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
BR	BR112017019567		OPTICAL BENCH SUBASSEMBLY HAVING INTEGRATED PHOTONIC DEVICE	May 2, 2018
CN	CN106461897		MANAGED CONNECTIVITY IN OPTICAL DISTRIBUTION FRAME	February 22, 2017
CN	CN106842440		COUPLING DEVICE HAVING STRUCTURED REFLECTIVE SURFACE FOR COUPLING INPUT/OUTPUT OF OPTICAL FIBER	June 13, 2017
JP	JP2017102471		OPTICAL FIBER CONNECTOR FERRULE WITH OPEN FIBER CLAMPING GROOVES	June 8, 2017
KR	KR20170127566		AXIAL PRELOAD FOR DEMOUNTABLE CONNECTORS	November 21, 2017
KR	KR20170129236		OPTICAL BENCH SUBASSEMBLY HAVING INTEGRATED PHOTONIC DEVICE	November 24, 2017

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
MX	MX20160014546		STAMPING TO FORM A COMPOSITE STRUCTURE OF DISSIMILAR MATERIALS HAVING STRUCTURED FEATURES.	February 20, 2017
MX	MX20160014892		DEMOUNTABLE OPTICAL CONNECTOR FOR OPTOELECTRONIC DEVICES.	March 7, 2017
MX	MX20160014893		OPTICAL CONNECTION OF OPTICAL FIBERS TO GRATING COUPLERS.	March 7, 2017
MX	MX20160015120		VISION-BASED PASSIVE ALIGNMENT OF AN OPTICAL FIBER SUBASSEMBLY TO AN OPTOELECTRONIC DEVICE.	February 22, 2017

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
MX	MX20170006171		A METHOD OF LASER POLISHING A CONNECTORIZED OPTICAL FIBER AND A CONNECTORIZED OPTICAL FIBER FORMED IN ACCORDANCE THEREWITH.	July 27, 2017
WO	WO2017070713		HERMETIC OPTICAL SUBASSEMBLY	April 27, 2017
WO	WO2018035389		OPTICAL FIBER CONNECTOR FERRULE ASSEMBLY HAVING SINGLE REFLECTIVE SURFACE FOR BEAM EXPANSION AND EXPANDED BEAM CONNECTOR INCORPORATING SAME	February 22, 2018

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
WO	WO2018035390		OPTICAL FIBER CONNECTOR FERRULE ASSEMBLY HAVING DUAL REFLECTIVE SURFACES FOR BEAM EXPANSION AND EXPANDED BEAM CONNECTOR INCORPORATING SAME	February 22, 2018
WO	WO2018048966		FIXTURE FOR RESHAPING AND RESIZING GROOVES IN OPTICAL FIBER FERRULES AND PROCESS INCORPORATING SAME	March 15, 2018
AU	2012240032	2012240032	Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	4/5/2012
AU	2012332184	2012332184	Castellated Optical Fiber Cable Retention Structure	11/2/2012
AU	2012376219	2012376219	High Density Multi-Fiber Ferrule for Optical Fiber Connector	10/11/2012

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
AU	2012376220	2012376220	Ferrule for Optical Fiber Connector Having a Compliant Structure for Clamping Alignment Pins	10/11/2012
AU	2013245808	2013245808	Hermetic Optical Fiber Feedthrough With Stamped Reflective Optics	4/11/2013
AU	2013289173	2013289173	Hermetic Optical Fiber Alignment Assembly	4/11/2013
AU	2013289174	2013289174	Optical Fiber Connector Ferrule Having Curved External Alignment Surface	4/11/2013
AU	2015258795		Demountable Optical Connector for Optoelectronic Devices	5/15/2015
AU	2015258866		Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	5/15/2015
AU	2015258871		Optical Connection of Optical Fibers to Grating Couplers	5/15/2015

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
AU	2015263909		Vision-Based Passive Alignment of an Optical Fiber Subassembly to an Optoelectronic Device	5/26/2015
AU	2015346222		A Method of Laser Polishing a Connectorized Optical Fiber & a Connectorized Optical Fiber Formed in Accordance Therewith	11/12/2015
AU	2016235238		Axial Preload for Demountable Connectors	3/22/2016
AU	2016235324		Optical Bench Subassembly Having Integrated Photonic Device	3/22/2016
AU	2017200052		Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	1/5/2017
AU	2017232626		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	3/15/2017
BR	BR112013025692-3		Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	4/5/2012

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
BR	BR112014021973 7		Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	9/5/2014
BR	BR112014024719 -6		Ferrule for Optical Fiber Connector Having a Compliant Structure for Clamping Alignment Pins	10/11/2012
BR	BR112014024825 -7		High Density Multi-Fiber Ferrule for Optical Fiber Connector	10/11/2012
BR	BR112014025218 -1		Optical Fiber Connector Ferrule Having Curved External Alignment Surface	4/11/2013
BR	BR112014025227 -0		Hermetic Optical Fiber Feedthrough With Stamped Reflective Optics	4/11/2013
CA	2,495,231	2,495,231	High Precision Optoelectronic Components	8/18/2003
CA	2,832,182	2,832,182	Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	4/5/2012
CA	2,854,399		Castellated Optical Fiber Cable Retention Structure	11/2/2012

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
CA	2,865,800		Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	3/5/2013
CA	2,869,310		High Density Multi-Fiber Ferrule for Optical Fiber Connector	10/11/2012
CA	2,869,318		Ferrule for Optical Fiber Connector Having a Compliant Structure for Clamping Alignment Pins	10/11/2012
CA	2,869,678		Hermetic Optical Fiber Feedthrough With Stamped Reflective Optics	4/11/2013
CA	2,869,742		Hermetic Optical Fiber Alignment Assembly	4/11/2013
CA	2,869,770		Optical Fiber Connector Ferrule Having Curved External Alignment Surface	4/11/2013
CA	2,948,376		Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	5/15/2015

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
CA	2,948,633		Optical Connection of Optical Fibers to Grating Couplers	5/15/2015
CA	2,948,635		Demountable Optical Connector for Optoelectronic Devices	5/15/2015
CA	2,949,107		Vision-Based Passive Alignment of an Optical Fiber Subassembly to an Optoelectronic Device	5/26/2015
CA	2,967,365		A Method of Laser Polishing a Connectorized Optical Fiber & a Connectorized Optical Fiber Formed in Accordance Therewith	11/12/2015
CA	2,978,955		Optical Bench Subassembly Having Integrated Photonic Device	3/22/2016
CA	2,978,957		Axial Preload for Demountable Connectors	3/22/2016
CA	3,040,861		Hermetic Optical SubAssembly	10/24/2016
CA	3,055,727		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	3/15/2017

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
CA	3,034,099		Optical Fiber Connector Ferrule Assembly Having Single Reflective Surface for Beam Expansion & Expanded Beam Connector Incorporating Same	8/17/2017
CA	3,034,100		Optical Fiber Connector Ferrule Assembly Having Dual Reflective Surfaces for Beam Expansion & Expanded Beam Connector Incorporating Same	8/17/2017
CN	3824052.1	ZL03824052.1	Stamping System for Manufacturing High Tolerance Parts	8/18/2003
CN	3824159.5	ZL03824159.5	High Precision Optoelectronic Components	8/18/2003
CN	201280027387.9	ZL201280027387.9	Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	4/5/2012
CN	201280073048.4	ZL201280073048.4	Ferrule for Optical Fiber Connector Having a Compliant Structure for Clamping Alignment Pins	10/11/2012

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
CN	201280073050.1	ZL201280073050.1	High Density Multi-Fiber Ferrule for Optical Fiber Connector	10/11/2012
CN	201380019960.6	ZL201380019960.6	Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	3/5/2013
CN	201380025944.8	ZL201380025944.8	Hermetic Optical Fiber Alignment Assembly	4/11/2013
CN	201380025961.1	ZL201380025961.1	Hermetic Optical Fiber Feedthrough With Stamped Reflective Optics	4/11/2013
CN	201380026424.9	ZL201380026424.9	Optical Fiber Connector Ferrule Having Curved External Alignment Surface	4/11/2013
CN	201580032880.3		Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	5/15/2015
CN	201580033527.7		Optical Connection of Optical Fibers to Grating Couplers	5/15/2015

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
CN	201580033706.0		Vision-Based Passive Alignment of an Optical Fiber Subassembly to an Optoelectronic Device	5/26/2015
CN	201580073050.5		A Method of Laser Polishing a Connectorized Optical Fiber & a Connectorized Optical Fiber Formed in Accordance Therewith	11/12/2015
CN	201680017670.1		Axial Preload for Demountable Connectors	3/22/2016
CN	201580033546.X		Demountable Optical Connector for Optoelectronic Devices	5/15/2015
CN	201680023080.X		Optical Bench Subassembly Having Integrated Photonic Device	3/22/2016
CN	201780028528.1		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	3/15/2017

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
CN	201780062706.2		Optical Fiber Connector Ferrule Assembly Having Single Reflective Surface for Beam Expansion & Expanded Beam Connector Incorporating Same	8/17/2017
CN	201780062705.8		Optical Fiber Connector Ferrule Assembly Having Dual Reflective Surfaces for Beam Expansion & Expanded Beam Connector Incorporating Same	8/17/2017
EP	3788647	1535097B	High Precision Optoelectronic Components	8/18/2003
EP	12725558.6		Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	10/11/2013
EP	12795890.8		High Density Multi-Fiber Ferrule for Optical Fiber Connector	9/29/2014
EP	12805801.3		Ferrule for Optical Fiber Connector Having a Compliant Structure for Clamping Alignment Pins	9/29/2014

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
EP	12812417.9		Castellated Optical Fiber Cable Retention Structure	5/13/2014
EP	13710737.1		Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	9/17/2014
EP	13725854.7		Hermetic Optical Fiber Feedthrough With Stamped Reflective Optics	10/7/2014
EP	13785965.8		Hermetic Optical Fiber Alignment Assembly	10/7/2014
EP	13786334.6		Optical Fiber Connector Ferrule Having Curved External Alignment Surface	10/7/2014
EP	15729969.4		Demountable Optical Connector for Optoelectronic Devices	11/29/2016
EP	15730312.4		Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	11/29/2016

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
EP	15730322.3		Vision-Based Passive Alignment of an Optical Fiber Subassembly to an Optoelectronic Device	11/29/2016
EP	15733949		Optical Connection of Optical Fibers to Grating Couplers	11/29/2016
EP	15813151.6		A Method of Laser Polishing a Connectorized Optical Fiber & a Connectorized Optical Fiber Formed in Accordance Therewith	5/30/2017
EP	16717731		Optical Bench Subassembly Having Integrated Photonic Device	9/20/2017
EPO	17718166.6		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	10/11/2018
EPO	17771609.9		Optical Fiber Connector Ferrule Assembly Having Single Reflective Surface for Beam Expansion & Expanded Beam Connector Incorporating Same	2/27/2019

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
EPO	17804008.5		Optical Fiber Connector Ferrule Assembly Having Dual Reflective Surfaces for Beam Expansion & Expanded Beam Connector Incorporating Same	2/27/2019
DE	102012223460.8		Modified Transistor Outline (To)-Can Assembly for Use in Optical Communications & a Method	12/17/2012
DE	102013221451.0		Optoelectronic Module Having a Metal Optic	10/22/2013
IN	201647042572		Demountable Optical Connector for Optoelectronic Devices	12/14/2016
IN	201647042624		Optical Connection of Optical Fibers to Grating Couplers	12/14/2016
IN	201647042764		Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	12/15/2016
IN	201647043594		Vision-Based Passive Alignment of an Optical Fiber Subassembly to an Optoelectronic Device	12/21/2016

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
IN	201747020067		A Method of Laser Polishing a Connectorized Optical Fiber & a Connectorized Optical Fiber Formed in Accordance Therewith	6/8/2017
IN	201747036817		Axial Preload for Demountable Connectors	10/17/2017
IN	201747036818		Optical Bench Subassembly Having Integrated Photonic Device	10/17/2017
IN	201847038550		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	10/11/2018
IN	201947008816		Optical Fiber Connector Ferrule Assembly Having Single Reflective Surface for Beam Expansion & Expanded Beam Connector Incorporating Same	3/7/2019

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
IN	201947008874		Optical Fiber Connector Ferrule Assembly Having Dual Reflective Surfaces for Beam Expansion & Expanded Beam Connector Incorporating Same	3/07/2019
IN	381/CHENP/2005	234067	Stamping System for Manufacturing High Tolerance Parts	Filed 3/14/2005 Issued 5/5/2009
IN	382/CHENP/2005	213105	High Precision Optoelectronic Components	Filed 3/14/2005 Issued 12/20/2007
IN	529/CHENP/2013		Deterministic Cleave of Optical Fiber	1/22/2013
IN	3971/CHENP/2014		Castellated Optical Fiber Cable Retention Structure	5/27/2014
IN	7241/CHENP/2014		Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	9/29/2014
IN	7906/CHENP/2014		Ferrule for Optical Fiber Connector Having a Compliant Structure for Clamping Alignment Pins	10/28/2014

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
IN	7913/CHENP/2014		High Density Multi-Fiber Ferrule for Optical Fiber Connector	10/28/2014
IN	8125/CHENP/2014		Hermetic Optical Fiber Feedthrough With Stamped Reflective Optics	11/7/2014
IN	8126/CHENP/2014		Hermetic Optical Fiber Alignment Assembly	11/7/2014
IN	8127/CHENP/2014		Optical Fiber Connector Ferrule Having Curved External Alignment Surface	11/7/2014
IN	8314/CHENP/2013		Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	10/15/2013
IL	248777		Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	11/6/2016
IL	248892		Optical Connection of Optical Fibers to Grating Couplers	11/10/2016
IL	248894		Demountable Optical Connector for Optoelectronic Devices	11/10/2016

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
IL	249035		Vision-Based Passive Alignment of an Optical Fiber Subassembly to an Optoelectronic Device	11/17/2016
IL	252243		A Method of Laser Polishing a Connectorized Optical Fiber & a Connectorized Optical Fiber Formed in Accordance Therewith	5/11/2017
IL	254362		Axial Preload for Demountable Connectors	3/22/2016
IL	254364		Optical Bench Subassembly Having Integrated Photonic Device	3/22/2016
IL	261739		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	3/15/2017
JP	2004-529130	4763287	Stamping System for Manufacturing High Tolerance Parts	Filed 8/18/2003 Issued 6/17/2011
JP	2010-152330	5426490	High Precision Optoelectronic Components	Filed 7/2/2010 Issued 12/6/2013

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
JP	2012272309	6046475	Modified Transistor Outline (To)-Can Assembly for Use in Optical Communications & a Method	12/13/2012
JP	2013-518590	6002666	Deterministic Cleave of Optical Fiber	6/28/2011
JP	2014-540169	6169588	Castellated Optical Fiber Cable Retention Structure	11/2/2012
JP	2014-561062	6273217	Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	3/5/2013
JP	2015-504542	6404812	High Density Multi-Fiber Ferrule for Optical Fiber Connector	10/2/2014
JP	2015-504543	6334510	Ferrule for Optical Fiber Connector Having a Compliant Structure for Clamping Alignment Pins	10/11/2012
JP	2015-505919		Hermetic Optical Fiber Alignment Assembly	10/10/2014
JP	2015-505926	6325522	Optical Fiber Connector Ferrule Having Curved External Alignment Surface	4/11/2013

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
JP	2016-567423		Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	11/10/2016
JP	2016-567772		Optical Connection of Optical Fibers to Grating Couplers	11/14/2016
JP	2016-567835		Demountable Optical Connector for Optoelectronic Devices	11/14/2016
JP	2016-568806		Vision-Based Passive Alignment of an Optical Fiber Subassembly to an Optoelectronic Device	11/21/2016
JP	2017-525608		A Method of Laser Polishing a Connectorized Optical Fiber & a Connectorized Optical Fiber Formed in Accordance Therewith	5/11/2017
JP	2017-546851		Axial Preload for Demountable Connectors	9/5/2017
JP	2017-546852		Optical Bench Subassembly Having Integrated Photonic Device	9/5/2017

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
JP	2018-129579		Hermetic Optical Fiber Feedthrough With Stamped Reflective Optics	7/9/2018
JP	2018-548721		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	9/14/2018
JP	2017-8185	6401316	Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	Filed 4/5/2012 Issued 9/14/2018
JP	2019-509543		Optical Fiber Connector Ferrule Assembly Having Single Reflective Surface for Beam Expansion & Expanded Beam Connector Incorporating Same	2/18/2019
JP	2019-509521		Optical Fiber Connector Ferrule Assembly Having Dual Reflective Surfaces for Beam Expansion & Expanded Beam Connector Incorporating Same	02/18/2019
KR	10-2005-7002627	10-1059611	Stamping System for Manufacturing High Tolerance Parts	Filed 2/16/2005 Issued 8/19/2011

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
KR	10-2005-7002633	10-1139562	High Precision Optoelectronic Components	Filed 2/16/2005 Issued 4/17/2012
KR	10-2012-7007725	10-1278321	Stamping System for Manufacturing High Tolerance Parts	Filed 3/26/2012 Issued 6/18/2013
KR	10-2013-7002137	10-1817818	Deterministic Cleave of Optical Fiber	1/25/2013
KR	10-2013-7028924		Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	10/31/2013
KR	10-2014-7027760		Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	10/1/2014
KR	10-2014-7030747		Ferrule for Optical Fiber Connector Having a Compliant Structure for Clamping Alignment Pins	10/31/2014
KR	10-2016-7035155		Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	12/15/2016
KR	10-2016-7035156		Optical Connection of Optical Fibers to Grating Couplers	12/15/2016

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
KR	10-2016-7035160		Demountable Optical Connector for Optoelectronic Devices	12/15/2016
KR	10-2016-7035583		Vision-Based Passive Alignment of an Optical Fiber Subassembly to an Optoelectronic Device	12/20/2016
KR	10-2017-7015457		A Method of Laser Polishing a Connectorized Optical Fiber & a Connectorized Optical Fiber Formed in Accordance Therewith	6/7/2017
KR	10-2018-7029718		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	10/15/2018
KR	10-2019-7007300		Optical Fiber Connector Ferrule Assembly Having Single Reflective Surface for Beam Expansion & Expanded Beam Connector Incorporating Same	3/13/2019

Country	PUB. OR APP. NO.	PATENT NO.	TITLE	PUB. OR FILING DATE
KR	10-2019-7007301		Optical Fiber Connector Ferrule Assembly Having Dual Reflective Surfaces for Beam Expansion & Expanded Beam Connector Incorporating Same	3/13/2019
MX	MX/a/2013/000095	324622	Deterministic Cleave of Optical Fiber	1/7/2013
MX	MX/a/2013/011516	336626	Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	4/5/2012
MX	MX/a/2014/005374	332972	Castellated Optical Fiber Cable Retention Structure	5/2/2014
MX	MX/a/2014/010491	338930	Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	9/2/2014
MX	MX/a/2014/011911	338751	High Density Multi-Fiber Ferrule for Optical Fiber Connector	10/2/2014
MX	MX/a/2014/011913	340332	Ferrule for Optical Fiber Connector Having a Compliant Structure for Clamping Alignment Pins	10/2/2014

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MX	MX/a/2014/012163	337478	Hermetic Optical Fiber Alignment Assembly	10/8/2014
MX	MX/a/2014/012165	341296	Optical Fiber Connector Ferrule Having Curved External Alignment Surface	4/11/2013
MX	MX/a/2014/012166	338574	Hermetic Optical Fiber Feedthrough With Stamped Reflective Optics	10/8/2014
MX	MX/a/2017/012155		Optical Bench Subassembly Having Integrated Photonic Device	9/25/2017
MX	MX/a/2017/012156		Axial Preload for Demountable Connectors	9/25/2017
MX	PA/a/2005/001777	259508	High Precision Optoelectronic Components	2/14/2005
WO	PCT/US17/22609		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	3/15/2017
WO	PCT/US17/50364		High-Precision Fixture for Aligning Optical Fiber Ferrules for Processing & Processes Using Same	9/6/2017

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WO	PCT/US19/57744		Right-Angle Board Connector Using Micro Optical Bench	10/23/2019
WO	PCT/US19/57742		Demountable Edge Couplers with Micro-Mirror Optical Bench for Photonic Integrated Circuits	10/23/2019
RU	2013144657	2638965	Optical Fiber Connector Ferrule Having Open Fiber Clamping Grooves	10/7/2013
RU	2014121851		Castellated Optical Fiber Cable Retention Structure	5/30/2014
RU	2014139853	2649034	Coupling Device Having a Structured Reflective Surface for Coupling Input/Output of an Optical Fiber	10/2/2014
RU	2014144227	2629912	Ferrule for Optical Fiber Connector Having a Compliant Structure for Clamping Alignment Pins	11/5/2014
RU	2014144228	2630201	High Density Multi-Fiber Ferrule for Optical Fiber Connector	11/5/2014
RU	2014144530	2647212	Hermetic Optical Fiber Alignment Assembly	11/7/2014

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RU	2014144531	2642534	Optical Fiber Connector Ferrule Having Curved External Alignment Surface	4/11/2013
RU	2014144532	2638979	Hermetic Optical Fiber Feedthrough With Stamped Reflective Optics	11/7/2014
RU	2016148600		Stamping to Form a Composite Structure of Dissimilar Materials Having Structured Features	12/12/2016
RU	2016149987		Vision-Based Passive Alignment of an Optical Fiber Subassembly to an Optoelectronic Device	12/20/2016
RU	2017119642		A Method of Laser Polishing a Connectorized Optical Fiber & a Connectorized Optical Fiber Formed in Accordance Therewith	6/6/2017
RU	2017136256		Optical Bench Subassembly Having Integrated Photonic Device	10/13/2017
RU	2017136257		Axial Preload for Demountable Connectors	10/13/2017

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RU	2018136225		Optical Alignment of an Optical Subassembly to an Optoelectronic Device	10/15/2018